From the editors of *Farm Equipment...*

Ag Equipment Intelligence

News, Information & Analysis for the Ag Equipment Marketer

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- Dealers Post Solid Gains
- Mfrs. Report Strong 2Q
- World Tractor Sales +13%

Rising Interest Rates, Repayment Issues Contribute to Dip in Farm Economy

Quarterly reports on surveys of bankers in three Midwestern Federal Reserve Bank districts indicate that rising interest rates and low commodity prices may impact farmers' decisions on making larger, long-term investments in the near future. Farm equipment dealers should take note of this trend, as higher interest rates for farmers mean they will be less willing, or able, to take out a loan for capital expenditures.

Survey findings of bankers within the Fed's Seventh District (Chicago), Eighth District (St. Louis) and Tenth districts (Kansas City) showed mixed results in changes to farmland values but are consistent in showing interest rates for all types of loans are rising.

Nathan Kauffman, author of the Kansas City Fed's Ag Credit Survey report, explained the rising interest rate situation this way: "While increased interest expenses are unlikely to have a significant impact on farm income in the short term, higher rates are likely to influence decisions in making longer term capital and real estate purchases."

The three branches also found a rising number of farmers are slower to repay existing loans, which may point to fewer equipment purchases in the future due to customers facing financial hardships.

Rising Interest Rates. Interest rates on farm loans continued to rise in the Tenth District relative to the first quarter of 2018, with the largest increase being for variable-rate loans, Kauffman noted. Both fixed and variable interest rates on all categories of loans rose in the Eighth District, noted the St. Louis Fed's Larry Sherrer, Brian Levine and Kevin Kliesen. For instance, fixed interest rates for machinery/intermediate-term loans in the Eighth District rose from 5.83% in the first quarter to 6% in the second quarter.

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Despite Growing Frustration with EPA, Ethanol Production, Exports Continue to Expand

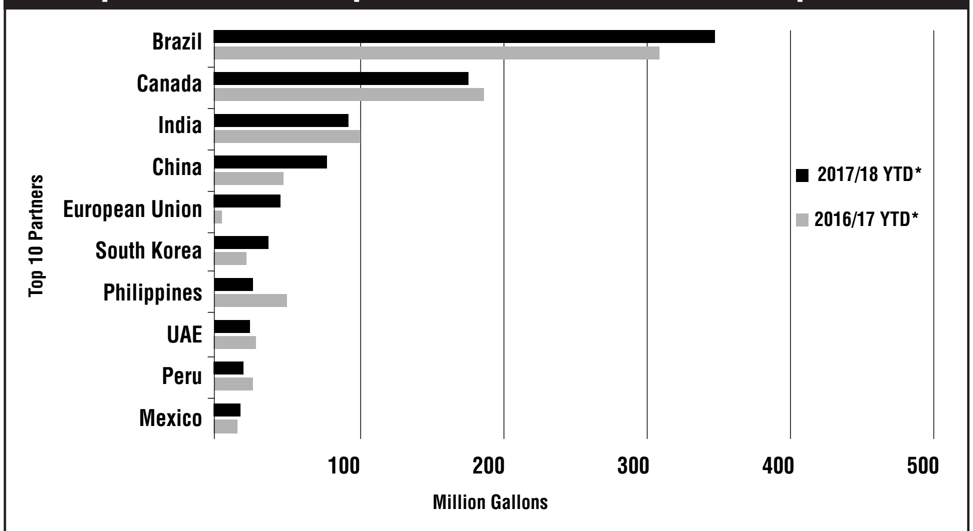
Ethanol usage, which helped fuel the ag equipment sales boom from 2005-2013, has flattened out, but exports continue to prop up its overall production. Nonetheless, the fight to maintain and grow its place in the fuels market has been frustrating.

According to the National Corn Growers Assn., about 30% of all U.S. corn is used for ethanol fuel. When combined with its production byproduct, Distiller Dried Grains with Solubles (DDGS), that figure rises to nearly 40%. So, it's no wonder why corn growers and ethanol producers are battling with Big Oil to maintain and grow ethanol production.

But the political frustrations

Continued on page 12

Top U.S. Ethanol Export Market Year-to-Date Comparison



Ironically, the U.S.' main competitor in ethanol production, Brazil, is also its leading market for U.S. exports. No doubt, at least part of the growth in exports is a result of low corn prices, which makes ethanol more competitive in world markets. *Source: USDA GATS; (*) YTD period of September-March*

Federal Reserve Eighth District Interest Rates (%)

	Q2	Q1
Operating Loans		
Fixed	5.94	5.88
Variable	5.54	5.32
Machinery/Intermediate Term Loans		
Fixed	6.00	5.83
Variable	5.70	5.48
Farm Real Estate Loans		
Fixed	5.81	5.52
Variable	5.53	5.27

Both fixed and variable interest rates on all categories of loans rose in the Eighth District, compared to the previous quarter

Source: Federal Reserve Bank of St. Louis

One exception to this upward rate trend comes from the Seventh District, where the Fed's Chicago branch points out even though nominal interest rates increased from the previous quarter, when adjusted for inflation the rates actually ticked down.

Slower Repayments. Along with rising interest rates, loan repayment rates have dipped year-over-year, the Fed districts reported.

"Rates of loan repayment deteriorated slightly after showing signs of improvement in late 2017," said Kauffman. "While the pace of renewals and extensions continued to decrease gradually, demand for farm loans remained high. Bankers also indicated they expect demand in the next 3 months to be even larger, reflecting anticipated increases to operating loan balances through the end of the growing season."

The St. Louis Fed reported that bankers are less optimistic about loan repayments for the third quarter when compared with the repayment rates shown for the second quarter.

Farmland Value. The value of farmland is also a noteworthy trend for dealers to keep track of, as farmers often use land as collateral for loans to make investments, such as the purchase of equipment or buildings. Of the three Federal Reserve districts, only the Seventh District reported farmland values increasing in the second quarter, with values inching up 1% relative to the same period last year. For that district, report author David Oppedahl also noted land values increased 2% between the first and second quarters of 2018.

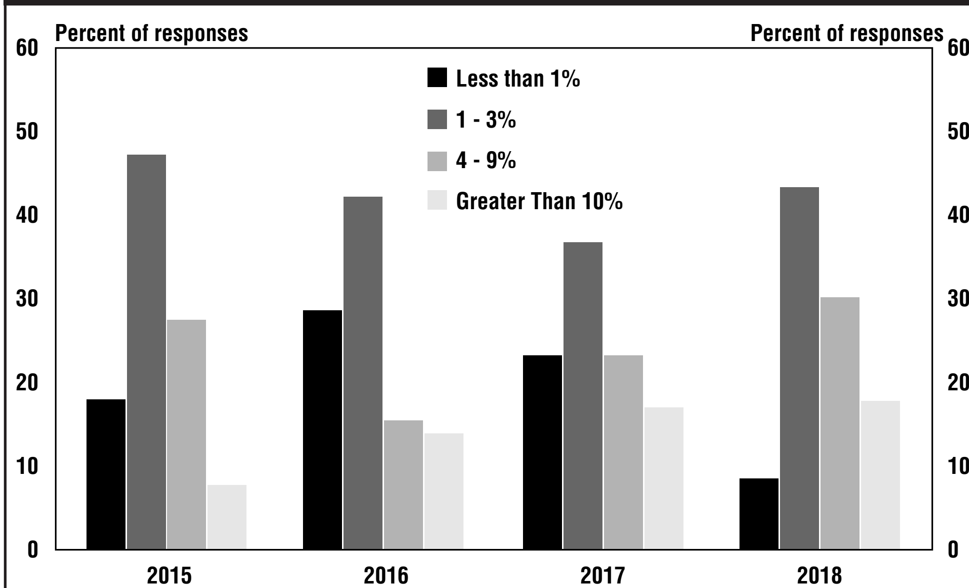
"Overall, district farmland values were steady in the first half of 2018 even amid ongoing trade disputes. About three-fourths of survey respondents expected district agricultural land values to be unchanged during the third quarter of 2018," while 22% said they expected values to decrease and only 2% expected them to increase, Oppedahl writes.

He explained that the slight uptick might come as a surprise, as many expect farm incomes to decline due to dropping commodity prices. The likely explanation lies in the fact that, when adjusted for inflation, interest rates on loans actually decreased over the last 3 months in the district. Oppedahl said higher interest rates tend to lower asset values such as land and vice versa. "Thus, the direction of average real interest rates on farm loans bears watching for a clue as to potential movements in agricultural land values."

Kauffman added that land values in the Tenth District fell only slightly year-over-year, although the recent increases in interest rates "could continue to put pressure on the market for farm real estate."

Land values fell 3.5% in the Eighth District, and St. Louis Fed economists said that survey respondents in the district expect farmland values and rents to fall in the third quarter compared with the year prior. **AEI**

Percent of 2Q Farm Operating Loan Applications Denied



Even though most banks that responded to the Kansas City Federal Reserve's quarterly survey said relatively few loan applications were denied overall, the number of denials in the second quarter increased.

Source: Federal Reserve Bank of Kansas City

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Kuhn Notes Positive Equipment Sales Trends, But U.S. Uncertainties Cause for Concern

During the first half of its financial year, Kuhn Group has seen a positive trend in agricultural equipment orders and sales, but managers highlight political and weather-related issues that could have a negative impact over future months.

From the beginning of January to the end of June this year, order intake at the equivalent of $475 million was up 13% on the same period last year, with net sales booked at $681 million, up 14% on the year prior after adjustment for currency effects.

These figures reflect a positive attitude to agricultural machinery replacement at the end of 2017 and in early 2018, especially in Western Europe, where recovering prices in the dairy and livestock sector generated positive farm incomes and boosted demand for hay and forage harvesting machinery and feeding equipment.

But Kuhn managers highlight a noticeable decline in the willingness of farmers in the U.S. to invest, as the wet spring weather delayed the start of the season, milk prices fell abruptly, and the U.S. and China became embroiled in a trade dispute.

Meanwhile, the arable sector in North America continued to suffer from the high grain inventories that recent good harvests have generated, which weighed down on grain prices. Further south, the forthcoming elections in Brazil and uncertainties surrounding subsidy programs have held back farmers from investing.

Although Kuhn Group anticipates stable milk and meat prices in Europe for the rest of the year, it also sees continued volatility in crop prices, especially in North America, with punitive Chinese tariffs on U.S. ag products such as soybeans delaying recovery in North America even further. It also notes concern about the likely impact of a lengthy period of drought that brought crop failures to northern and northeastern Europe.

Ag Equipment Intelligence's Europe correspondent reports the lack of rain hit grazing and forage production, resulting in dairy and other livestock producers cutting into harvested stocks intended for winter feed. Combined with herd reductions that depressed cull cow prices, the drought factor is likely to have a noticeable effect on cash available for machinery purchases, mainly because of anticipated higher spending on winter feed and straw for bedding.

Nonetheless, Kuhn managers expect an increase in the net sales figure for the year over 2017, with a similar operating profit margin resulting from low sales figures in the U.S., the high cost of steel, and by Kuhn's current challenges with the supply chain and human resources. **AEI**

FARM MACHINERY TICKER (AS OF 8/13/18)

MANUFACTURERS	Symbol	8/13/18 Price	7/11/18 Price	1-Year High	1-Year Low	P/E Ratio	Avg. Volume	Market Cap.
Ag Growth Int'l.	AFN	$58.53	$55.72	$60.63	$47.08	27.49	30,490	964.24M
AGCO	AGCO	$58.52	$60.23	$75.95	$56.36	21.36	725,650	4.65B
AgJunction Inc.	AJX	$0.86	$0.84	$0.91	$0.44	—	18,860	100.77M
Alamo	ALG	$95.69	$90.13	$120.59	$86.41	21.11	64,370	1.12B
Art's Way Mfg.	ARTW	$2.80	$2.80	$5.45	$2.00	—	33,540	11.76M
Buhler Industries	BUI	$3.62	$3.63	$4.89	$3.60	—	551	90.50M
Caterpillar	CAT	$135.02	$136.76	$173.24	$112.69	26.09	4,300,000	80.25B
CNH Industrial	CNHI	$11.38	$10.11	$15.65	$10.09	34.70	1,950,000	15.43B
Deere & Co.	DE	$136.91	$141.42	$175.26	$112.87	24.54	2,820,000	44.40B
Kubota	KUBTY	$75.51	$80.18	$107.13	$75.22	15.01	64,830	18.65B
Lindsay	LNN	$88.44	$97.20	$103.03	$83.57	44.00	86,260	951.38M
Raven Industries	RAVN	$38.10	$39.45	$42.40	$26.70	27.21	103,540	1.37B
Titan Int'l.	TWI	$7.19	$10.50	$14.53	$6.71	—	356,430	430.66M
Trimble Navigation	TRMB	$38.98	$33.24	$45.70	$32.01	67.56	1,570,000	9.74B
Valmont Industries	VMI	$137.55	$151.85	$176.35	$135.40	30.16	112,230	3.08B
RETAILERS								
Cervus Equipment	CERV	$14.16	$14.63	$15.85	$12.75	11.08	8,340	222.14M
Rocky Mountain Equipment	RME	$10.55	$11.65	$14.34	$10.45	9.92	35,550	209.82M
Titan Machinery	TITN	$14.48	$14.47	$25.09	$11.68	—	239,100	313.84M
Tractor Supply	TSCO	$79.49	$77.38	$82.68	$51.85	20.69	1,540,000	9.70B

Along with Improved 2Q Sales, CNH Industrial Touts Strong Ag Order Book

Besides reporting a 20% increase in net ag equipment sales in the second quarter (nearly 18% for the first half), the most encouraging news coming from CNH Industrial's July 26 earnings report is its solid ag equipment order book going into the second half of the year. The company reported, "In the quarter, production levels were 12% above retail demand, in line with the order book, which is up approximately 15% compared to the prior year period."

CNH Industrial Segment Results – 1H & 2Q 2018
($ millions)

	6 months ended June 30			3 months ended June 30		
	2018	2017	% change	2018	2017	% change
Ag Equipment	5,891	5,006	17.7	3,312	2,766	19.7
Const. Equipment	1,481	1,152	28.6	799	650	22.9
Commercial Vehicle	5,384	4,723	14.0	2,889	2,598	11.2
Powertrain	2,404	2,137	12.5	1,218	1,136	7.2
Total Industrial	13,879	11,815	17.5	7,579	6,525	16.2
Consolidated Revenues	**14,818**	**12,716**	**15.9**	**8,045**	**7,003**	**14.9**

Source: Company reports

Overall, the company announced consolidated revenues of about $8.1 billion for the second quarter of 2018, up 15% compared to the same period of 2017. Net sales in its Industrial Activities were $7.6 billion during the period, up 16% compared to 2017. Net income of $408 million for the quarter included a pre-tax gain of $20 million ($15 million net of tax impact) as a result of the amortization over approximately 4.5 years of the $527 million positive impact from the modification of a healthcare plan following the favorable judgment issued by the United States Supreme Court, as announced by the company on April 16, 2018.

Strong NAFTA Sales. The company attributed the improved farm equipment sales to a favorable end-user demand environment, with North American row-crop industry demand up 9% in high horsepower tractors and 26% in combines. Together with "increased sales from company inventory," which led to the segment's strong retail performance (up 16% year-over-year), price realization was favorable across all regions.

Adjusted EBIT was $396 million in the second quarter of 2018, a $135 million increase compared to the second quarter of 2017. Adjusted EBIT margin increased to 12% compared to the second quarter of 2017. Half of the increase was due to favorable volume and mix, primarily in NAFTA and EMEA, while the remaining increase was due to sustained net price realization across all regions, including the expected reduction in interest compensation to Financial Services as a result of the achieving an investment grade rating. The anticipated increase in raw material costs was offset by manufacturing efficiencies. Product development spending, related y to precision farming and compliance with Stage V emissions requirements, increased 10%.

> ***"CNHI's ag equipment order book is up approximately 15% compared to 2017......"***

Outlook & Analysis. "While there were upside surprises in most areas, the 20% increase in ag with 25% incremental margins was the most compelling, along with the strong recovery in construction equipment margin," Michael Shlisky, analyst for Seaport Global Securities, said it a note. "Full year guidance was not raised, however, with management opting to take a 'prudent approach' given tariff and trade uncertainties."

CNH Industrial did not adjust its full year outlook and expects total revenue to come in at $28 billion.

"When coupled with ongoing cost efforts in all areas of the business and the fact that price/cost is not expected to be a major factor in the second half, we believe CNHI's guidance could be proven conservative," said Shlisky, but suggested several factors deserved close attention. "To be sure, the open CEO seat, global trade uncertainties and ongoing challenges to global ag fundamentals are reasons for caution, but with much of this news already baked in to the stock price, we believe the earnings reality could continue to outpace expectations from here." **AEI**

CNH Industrial Net Sales Split – Ag Equipment

By region	2Q18 split	Change vs. 2Q17
NAFTA	32%	21%
EMEA	42%	24%
LATAM	11%	1%
APAC	15%	20%
By product		
Tractors	57%	18%
Combines	23%	26%
Others	20%	19%

Source: Company reports

Solid Increases in North America, Europe Pace AGCO's 17% 2Q Sales Improvement

AGCO Regional Net Sales – 1H & 2Q 2018 ($ millions)						
	6 months ended June 30			3 months ended June 30		
	2018	2017	% change	2018	2017	% change
North America	1,103	861	28.1	600.5	478.8	25.4
South America	402	474	–15.3	220	252	–12.8
Europe/Middle East	2,709	2,162	25.3	1,545	1,270	21.7
Asia/Pacific/Africa	331	295	12.1	172	165	4.4
Total	**4,545**	**3,793**	**19.8**	**2,538**	**2,165**	**17.2**

Source: Company reports

Sluggish sales in South America (–12.8%) didn't dim AGCO's overall results as improving sales of farm machinery in the North American (+25.4%) and European regions (+21.7%) set the tone for AGCO Corp. in the second quarter of 2018. The company's Asia/Pacific/Africa results were up 4.4%.

The company reported net sales of $2.5 billion in the quarter, up 17.2% vs. the same period of the previous year. Net sales for the first 6 months of 2018 were approximately $4.5 billion, an increase of about 19.8% compared to the same period in 2017.

Generally, operating margins also showed improvement vs. the second quarter of last year: North America +6.3%, EME +13.5%, South America –7.6% and APA –0.7%. The company attributed its solid results to "Healthy industry conditions in Western Europe and improved market demand in North America that supported sales and margin improvement in those regions offsetting weak results in South America."

Net sales in the North American region increased 28% in the first 6 months of 2018 compared to the same period of 2017. Precision Planting, which AGCO acquired in the fourth quarter of 2017, contributed sales of nearly $83 million in the first half 2018. "Excluding the impact of acquisitions and currency translation, sales grew approximately 16.2% compared to the first 6 months of 2017," the company said. "The largest increases were in sprayers, high horsepower tractors and hay tools. Income from operations for the first 6 months of 2018 improved approximately $37.8 million compared to the same period in 2017."

AGCO expects net sales in 2018 to reach $9.3 billion, up slightly from its previous outlook. The company's projections include about a 12% increase in sales vs. 2017 "reflecting improved sales volumes, positive pricing as well as acquisition and foreign exchange impacts. Gross and operating margins are expected to improve from 2017 levels due to higher sales as well as the benefits resulting from the company's cost reduction initiatives, partially offset by increased engineering expenses." AEI

Michelin Gets into Rubber Track Business with Camso Acquisition

Tire manufacturer Michelin plans to capitalize on the burgeoning use of track systems on agricultural and other off-highway vehicles by acquiring Camso, the Canadian specialist in this field. Subsequent to closing the deal, Michelin's OTR (off the road) business will be merged with the Camso operation to form a new division based at Camso's headquarters in the Canadian city of Magog in Quebec.

Jean-Dominique Senard, chief executive officer of the Michelin group, hailed the acquisition, which has the approval of all Camso shareholders, as "a wonderful mutual opportunity. Michelin and Camso have many values in common. Michelin will benefit from all of Camso's skills in the off-the-road mobility markets and Camso from the full range of Michelin's expertise in the specialty markets," he said.

The two entities have identified significant opportunities to increase sales and reduce costs, unlocking up to U.S.$55 million worth of synergies by 2021. After obtaining the customary approvals, Michelin will pay U.S.$1.45 billion for the Camso business, corresponding to an enterprise value of U.S.$1.7 billion.

Camso, which changed its name from Camoplast in 2015 to reflect its Camoplast and Solideal brands, has global reach with net sales of U.S.$1 billion from OTR mobility solutions.

It has become a market leader in rubber tracks for farm tractors, harvesters and field implements such as planters since acquiring Caterpillar's rubber track technology and U.S. plants in 2002. In 2013, Camso bought the Italian track systems manufacturer Tidue, whose products are supplied to OEMs and as an after-market wheeled tractor conversion.

The Canadian business is also a leader in sales of bias-ply and solid tires for materials handling equipment — including traction tires for agricultural wheeled loaders and telescopic handlers — while ranking as a top-three player in the track and tire solutions market for smaller heavy construction equipment.

In the ag market, Michelin has witnessed growing use of rubber tracks as an alternative to its increasingly advanced traction tires. Once the Camso acquisition is complete, it will have a foot in both camps with the prospect of productive cross-fertilization of technologies as two R&D teams work together.

Pierre Marcouiller, executive chairman of Camso, said, "Camso will achieve its ambition to become the global off-the-road market leader and will contribute its dynamic teams, its technical and manufacturing assets and its customer-focused mindset to the new division." AEI

South American Ag Equipment Intelligence

Argentina Reveals New Interest Rate for Ag Machinery

Argentina's president Mauricio Macri announced in July a new credit line for the ag machinery manufacturing sector. Macri announced a rate of 23% per year for 5 year loans to be offered by the country's Bank of Investment and Foreign Trade. For perspective, Argentina's Central Bank rate reference is currently at 40%. In addition, Argentinian ag machinery manufacturers will receive support to export its equipment to subsidiaries in Chile, Brazil, Paraguay and Bolivia. The nation's top state-run bank, Banco Nación, will set aside 17% of its loans for the ag sector.

"We are working on the internationalization of local companies with financial tools," said production minister Dante Sica. The possibility of opening the Mozambique and Russian markets to Argentinian ag machinery was also mentioned.

Deere to Acquire Argentinian Sprayer, Planter Manufacturer

Deere & Co. announced July 31 a definitive agreement to purchase PLA, a manufacturer of sprayers, planters and specialty products. The company is based in Argentina with factories in Las Rosas, in the Santa Fe province, and in Canoas, Rio Grande do Sul, Brazil.

Deere's intention is to keep the PLA brand in Latin America, according to Aaron Wetzel, president of company's Crop Care division, during an interview with local media after a visit to the PLA factory. Deere purchased another Argentinian company, King Agro, in March 2018. Gastón Trajtenberg, president of John Deere Argentina, said that the company is "optimistic about future development in [the] Argentina [market]."

PLA's main domestic competitor is Metalfor. The Argentinian sprayers market had sales of 700 units last year. Founded in 1975, PLA was the first company to manufacture self-propelled sprayers in Latin America. The company has approximately 450 employees and currently markets products on 4 continents.

Since 2010, PLA has been owned and operated by the agricultural group Pampa Management Capital, which recently acquired seed companies Sursem and Relmó. The company was founded by the late entrepreneur Juan Carlos Pla. The value of the operation was not revealed, but experts speculate that it could be "from 5-7 years" of the Argentinian's company revenue.

Brazil Equipment Sales Remain Solid in July

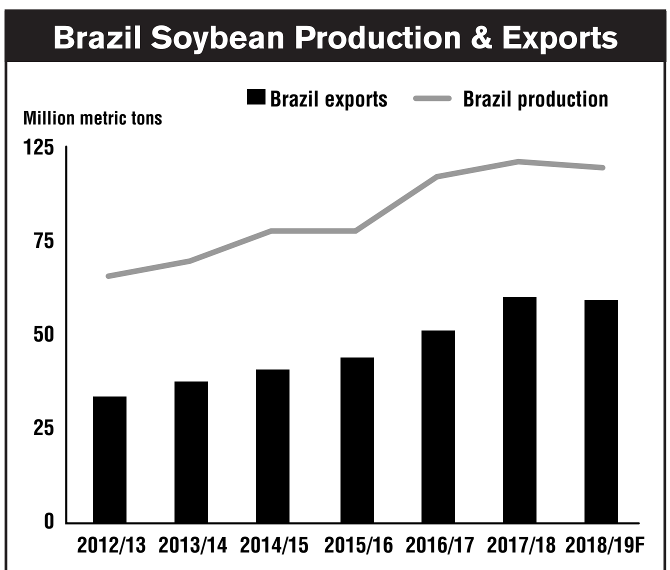
The latest report from Brazil's National Assn. of Automotive Vehicle Manufacturers (Anfavea) indicate that year-over-year tractor sales in July were up by 22.59% year-over-year. During the month, total tractor unit sales were 4,097 compared to 4,247 in June and 3,342 in July 2017. Year-to-date through July unit sales are 20,747 vs. 20,845 a year earlier.

Year-to-date sales of combines soared by 48.7% vs. the same 7 month period of 2017. Sales of the grain harvesters hit 405 units in July vs. 208 in July 2017. This compares to 480 in June of 2018 (down 15.6%). The accumulated unit sales from January to the end of July was 2,506, an increase of 18.1%, up from the 2,123 combines sold in the same period of 2017.

Brazil's Rising Soybean Exports Drive Production Growth

Brazil has become a leading global producer and the world's top exporter of soybeans. Long the second largest producer following the U.S., Brazil's soybean output is currently forecast to exceed that of the U.S. by the 2018-19 marketing year. If realized, Brazilian soybean production will have risen by over 22% since 2015-16. Almost all of the increased production has made its way to the export market, which has risen 34% over the same time.

In addition to significant growth in sales to China, Iran and Russia, domestic conditions in 2018 have also driven up exports. The Brazilian real has lost 205 of its value since January, 2018, and the country experienced a strike by the nation's truck drivers in May (See *Ag Equipment Intelligence*, June 2018). Since Brazil is highly dependent on truck deliveries, the work stoppage severely disrupted local supply chains. Despite road blockages that also stalled deliveries to ports, Brazilian soybean shipments in May reached a record high. Uninterrupted exports were made possible by an accumulation of soybean stocks at ports prior to the strike. Lengthening ship queues suggest that even more soybeans could have been shipped in the absence of disruptions to port deliveries.



Based on the latest forecasts, if realized, Brazilian soybean production will have risen by over 22% since 2015-16. (F = Forecast. Data reported in marketing years, Oct.– Sept.).

Source: USDA, ERS using , Foreign Agricultural Service data.

Large Ag Retail Sales Accelerated in July

North American large ag equipment sales had another strong showing in July, with year-over-year sales up in all but one category, according to the most recent Assn. of Equipment Manufacturers report. But RW Baird analyst Mircea (Mig) Dobre expects this momentum is likely to dissipate. "Large ag retail sales growth accelerated to +33% year-over-year in July with growth across each category in both the U.S. and Canada. Dealers built inventory across all categories," Dobre said in a note. U.S. tractor and combine sales increased 36% year-over-year for the month and Canadian sales likewise increased 23%.

Dobre noted North American large ag demand is still approximately 30% below normal replacement levels, "yet the setup near-term is decidedly more challenging — replacement demand is still there, the question is whether crop prices/trade wars can push out the recovery." He said commentary from Deere & Co. on early orders during its upcoming third quarter earnings call "will give a real-time demand update as current retail sales are yet to capture deterioration in farmer sentiment."

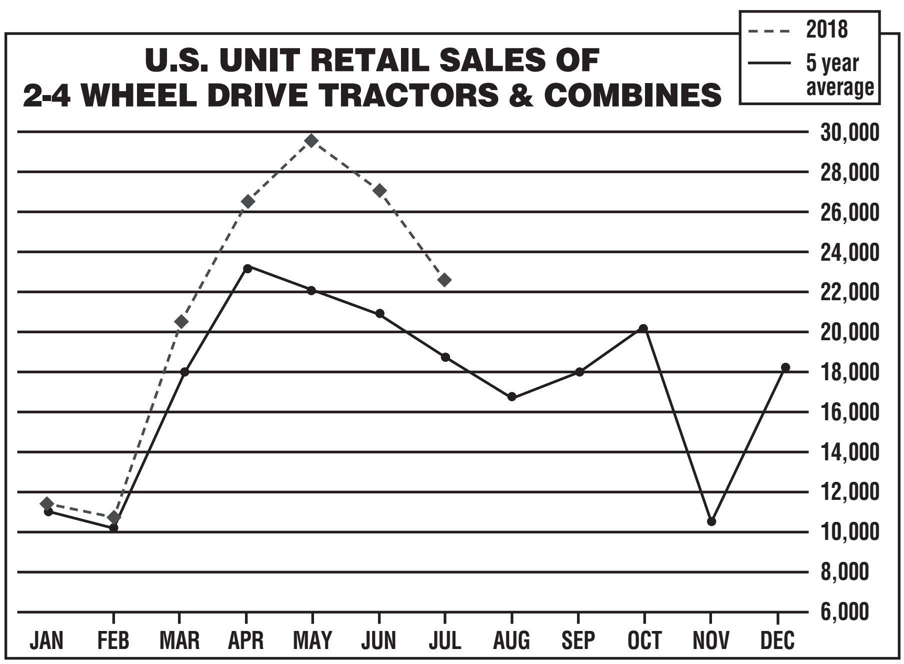
- 4WD tractor sales increased 75% year-over-year in July following the 27.7% increase in June. U.S. dealer inventories of 4WD tractors increased 18% year-over-year in June. July is typically an above average month for 4WD tractor sales, accounting for 8.8% of annual sales the last 5 years.
- Row-crop tractor sales increased 30% year-over-year after increasing 16.8% in June. U.S. row crop tractor inventories increased 4% year-over-year in June. July is typically a slightly below average month for row-crop tractor sales.
- Combine sales were up 29.7% in July following a 17.5% increase in June. U.S. combine inventories increased 13% year-over-year in June. July is typically a below average month for combine sales.
- Mid-range tractor sales decreased 0.8% in July after a 3.9% increase in June. Compact tractor sales were up 16.3% year-over-year following an increase of 14.6% in June. **AEI**

JULY U.S. UNIT RETAIL SALES

Equipment	July 2018	July 2017	Percent Change	YTD 2018	YTD 2017	Percent Change	Beginning Inventory July 2018
Farm Wheel Tractors-2WD							
Under 40 HP	14,358	12,336	16.4	98,836	90,292	9.5	82,451
40-100 HP	5,444	5,527	–1.5	34,775	33,929	2.5	33,890
100 HP Plus	1,584	1,211	30.8	10,089	9,584	5.3	8,454
Total-2WD	21,386	19,074	12.1	143,700	133,805	7.4	124,795
Total-4WD	213	120	77.5	1,295	1,149	12.7	822
Total Tractors	21,599	19,194	12.5	144,995	134,954	7.4	125,617
SP Combines	561	409	37.2	2,571	2,078	23.7	1,136

JULY CANADIAN UNIT RETAIL SALES

Equipment	July 2018	July 2017	Percent Change	YTD 2018	YTD 2017	Percent Change	Beginning Inventory July 2018
Farm Wheel Tractors-2WD							
Under 40 HP	1,420	1,225	15.9	8,687	8,217	5.7	9,823
40-100 HP	408	375	8.8	3,139	3,092	1.5	4,337
100 HP Plus	287	228	25.9	2,290	1,968	16.4	2,543
Total-2WD	2,115	1,828	15.7	14,116	13,277	6.3	16,703
Total-4WD	25	16	56.3	583	556	4.9	278
Total Tractors	2,140	1,844	16.1	14,699	13,833	6.3	16,981
SP Combines	290	247	17.4	1,121	1,047	7.1	772



— Assn. of Equipment Manufacturers

Other 2Q18 & 1H18 Ag-Related Earnings ...

Alamo Ag Sales Rise 8.9%

Alamo Group reported on Aug. 1 that it produced both record net income as well as record net sales for both the second quarter and first half of 2018. Net sales for the quarter came in at $257 million, up nearly 21%, as the agricultural division's net sales increased by nearly 9%. The company also said its backlog, as of Aug. 1, stood at $220 million, up 40% vs. the second quarter of the previous year.

Alamo Group – Segment Net Sales 1H & 2Q 2018
($ thousands)

	6 months ended			3 months ended		
	June 30, 2018	June 30, 2017	% change	June 30, 2018	June 30, 2017	% change
Agricultural	**$117,718**	**$105,998**	**11.1**	**$59,071**	**$54,221**	**8.9**
Industrial	282,198	243,158	16.1	150,031	117,342	27.9
European	95,296	79,509	19.9	48,023	41,713	15.1
Total net sales	495,212	428,665	15.5	257,125	213,276	20.6

Source: Company reports

Titan Int'l Ag Up 8.1%

Farm and off-road tire and wheel maker Titan International reported net sales were up by 18% year-over-year, the company's sixth consecutive year-over-year quarterly increase. Net sales for the second quarter of 2018 were $429 million vs. $364 million for the same period in 2017. For the first six months, net sales reached $854 million, an increase of 18.3%. The agricultural segment of Titan International's business was up by 8.1%

Titan International – Segment Net Sales 1H & 2Q 2018
($ thousands)

	6 months ended			3 months ended		
	June 30, 2018	June 30, 2017	% change	June 30, 2018	June 30, 2017	% change
Agricultural	**$381,037**	**$353,439**	**7.8**	**$186,870**	**$172,923**	**8.1**
Earthmoving/CE	387,696	286,589	35.3	198,963	150,970	31.2
Consumer	85,553	81,872	4.5	43,071	40,506	6.3
Total net sales	854,286	721,900	18.3	428,904	364,399	17.7

Source: Company reports

Trimble Resource & Utilities (Ag) Segment Improves 30%

Consolidated revenue for Trimble in the second quarter 2018 came in at $785.5 million, up 19% compared to the same period 2017. Buildings and Infrastructure revenue was $274.3 million, up 24%. Geospatial revenue was $184.4 million, up 12%. Resources and Utilities revenue, which includes the company's agricultural segment, was $145 million, increased by 30%. Transportation revenue was $181.8 million, up 11%.

According to Darryl Matthews, senior vice president, Trimble's Resources and Utilities segment has a total addressable market of $14 billion, with global penetration at less than 25%. 2017 segment revenue was $481 million with a 21% growth rate.

Operating margins were 28.5% in the past year, while revenue mix in this segment is predominantly ag. More than 70% of revenue, which is mostly ag, comes from outside of North America. **AEI**

Trimble Revenues – 1H & 2Q 2018
($ millions)

	6 months ended			3 months ended		
	June 30, 2018	June 30, 2017	% change	June 30, 2018	June 30, 2017	% change
Resources & Utilities	**$304.2**	**$231.8**	**31.2**	**$145.0**	**$111.6**	**29.9**
Operating margin*	30.9%	33.5%		29.2%	31.4%	
Consolidated revenues						
Product	$1,028.8	$855.0	20.3	$531.0	$445.4	19.2
Service	264.9	218.5	17.5	136.1	111.9	21.6
Subscription	234.0	197.0	18.8	118.4	102.6	15.4
Total revenues	**1,527.7**	**1,270.5**	**20.2**	**785.5**	**659.9**	**19.0**

**% of segment external net revenue*

Source: Company reports

Kubota NA Revenues Rise 8%; Plans New European R&D Center

Kubota Corp. registered solid sales results through the first half of the year, especially in North America. It also announced it is investing in a new R&D facility for Europe.

Consolidated Revenue – 1H & 2Q 2018 ($ millions)								
	6 months ended June 30, 2018		6 months ended June 30, 2017		3 months ended June 30, 2018		3 months ended June 30, 2017	
	Revenue	% of total	Revenue	% of total	Revenue	% of total	Revenue	% of total
Farm Equipment and Engines	**$5,406**	**66.5%**	**$5,144**	**67.7%**	**$2,964**	**69.2%**	**$2,772**	**69.9%**
Domestic	$1,257		$1,191		$682		$640	
Overseas	$4,149		$3,953		$2,282		$2,132	
Construction Machinery	**$1,334**	**16.4%**	**$1,118**	**14.7%**	**$729**	**17%**	**$623**	**15.7%**
Domestic	$142		$129		$70		$63	
Overseas	$1,191		$989		$659		$560	
TOTAL	**$6,740**		**$6,262**		**$3,694**		**$3,395**	

Source: Company reports

Strong First Half. Through the first half of 2018, Kubota Corp. reported overall revenues increased by 7%, or $500 million vs. the first 6 months of 2017 to $8.1 billion. Revenue from Kubota's Farm & Industrial Machinery, which accounts for nearly 83% of the company's total revenue and includes farm equipment, agricultural-related products, engines and construction machinery, increased by 7.6% vs. the same period in the prior year to $6.7 billion.

In the 6 month period ended June 30, Kubota said overseas revenue increased by 8.1% to $5.3 billion.

Revenue generated in the U.S. during the second quarter of this year totaled around $1.2 billion vs. roughly $1.1 billion during the second quarter of 2017, an increase of 8%. During the first half of the year, U.S. revenue was $2.1 billion compared to just under $2 billion during the first 6 months of 2017, up 9%.

New R&D Center. A €55 million ($64.5 million) investment in a new R&D center will underpin Kubota's growth plan for Europe by ensuring that future tractor models meet the specific requirements of farmers in the region while keeping the group's "DNA."

The plant, which is due to be fully operational in 2020, will be located near Paris, three hours south of Kubota's 130-175 horsepower tractor assembly plant at Dunkirk.

Kubota Corp. says it continues to make significant investments into its expansion throughout Europe and its new facility will be the Competence Centre of Engineering for agricultural tractor markets.

This will be the base for Kubota's research activities for tractors in the Europe region. Last year, Kubota restructured its European operations by setting up Kubota Holdings Europe to shift business management from individual countries to a pan-European basis.

The company is based at Nieuw-Vennep in The Netherlands where Kubota's Kverneland Group has its mechatronics unit developing electronic controls and displays and the crop care Competence Centre developing and producing sprayers and fertilizer spreaders. Kubota maintains sales subsidiaries in Germany and Spain, and in the UK where a £1.2 million ($1.6 million) project to improve office and warehousing facilities was completed toward the end of last year.

Regarding the new R&D center, Kubota says it plans to boost product development as part of a globalization process, in line with aspirations to adapt to the specific needs of host markets. The new center will play a vital role in this process in developing agricultural machinery customized to work efficiently and effectively for local crops, field conditions and work processes. **AEI**

Trioliet Opens U.S. Parts Facility in Wisconsin

A Dutch manufacturer of cattle feed mixer-feeders has opened a new distribution and parts center in Mineral Point, Wis., to meet increasing demand for wholegoods and parts in the North American market.

Trioliet, formed in the 1950s by three brothers of the Liet family, exports more than 80% of its production to 50 countries from its factories at Oldenzaal in the north of The Netherlands, 100 miles east of Amsterdam. The company manufactures static, tractor-trailed, self-propelled and truck-mounted diet mixer-feeders, and automatic feeding systems for cow barns.

At Mineral Point, the new facility consists of a 10,000 square foot warehouse holding more than 5,000 items. The location will also be used to distribute Trioliet total mixed ration mixer-feeders and spare parts.

Dealers and suppliers attended the official opening by town Mayor Jason Basting, Louis Piët, agricultural consul at the Dutch embassy, Trioliet wholegoods and parts sales managers Norb Schaaf and Roy Oude Nijhuis, and the company's CEO, Robert Liet.

"For cattle farmers, it's important to have the mixer-feeder running again as soon as possible in the case of a breakdown," Liet said. "With the new distribution center, Trioliet is able to help dairy farmers in North America in less than 24 hours." **AEI**

Rocky Mountain Dealerships 1H18 Sales Up 18%

Rocky Mountain Dealerships – Selected Financial Information 1H & 2Q 2018

(C$ thousands)

	6 months ended			3 months ended		
	2018	2017	% change	2018	2017	% change
Sales	$522,293	$446,830	16.9	$302,639	$236,890	27.8
Cost of sales	457,230	384,534	18.9	264,539	201,372	31.4
Gross profit	65,063	62,296	4.4	38,100	35,518	7.3
Gross profit as % of sales	12.5%	13.9%	– 1.4	12.6%	15.0%	– 2.4

Source: Company reports

Rocky Mountain Dealerships, Canada's largest ag equipment dealer which handles Case and New Holland-branded equipment, reported that its total second half sales increased by nearly 28%, or $66 million, to $303 million vs. $237 million in the same period last year. According to the dealership group, this was a new company record for second quarter sale of new equipment, which grew by 46% year-over-year. Used equipment sales were up by 18% and sale of parts rose by nearly 4.5%.

Gross profit for RME increased by 7.3%, or $2.6 million, to $38 million, compared to $36 million for the same period in 2017.

Also on a positive note, Rocky Mountain noted that used equipment sales levels outpaced trade-ins, allowing the dealership to draw down used equipment inventory on a sequential basis despite the trade-in volume associated with record second quarter new equipment sales. They also noted that gross profit benefited from the strong sales activity, however, margins deteriorated. As a percentage of sales, gross margin amounted to 12.6%, down from 15% during the same period last year.

In a note, Ben Cherniavsky, analyst for Raymond James, commented, "Following several years of internal optimization that was focused on streamlining past acquisitions, reducing debt, and eliminating costs, we believe the company is now poised to pursue greener pastures through measured growth and consolidation, both of which were also evident in second quarter 2018 results."

Cherniavsky also noted since April 2015, RME had not pursued acquisitions, but that ended in recent months. "Rocky is getting back on the consolidation train with the acquisition of two New Holland dealerships in Western Canada, totaling about $50 million of revenue or nearly 25% of its 5 year $200 million target for acquired revenues." **AEI**

Oxbo Expands 'Floater' Range with Dutch-Built Applicators

Specialist agricultural equipment manufacturer Oxbo is building its presence in the North American "floater" application vehicle market with a second machine built by Dutch colleagues.

Oxbo International Corp., headquartered in Byron, N.Y., wants a slice of the market for high capacity spreading vehicles used by custom operators and large farmers to apply dry and liquid fertilizer, farm manure and municipal waste.

The company entered the fertilizer spreader market last fall with the 3-wheel 4103, which competes with the Case IH Titan and AGCO's Challenger TerraGator spreaders. It is now set to add a bigger capacity 5 wheeler with dry spreading and liquid manure injecting options.

Both vehicles are designed and manufactured by Ploeger Machines, a sister company in the Ploeger Oxbo Group, which generates €180 million ($212 million) turnover, mainly from sales of specialty harvesters. It employs more than 700 people and is active in over 40 countries.

Ploeger took up the challenge of building advanced applicator machines more than 2 years ago after AGCO closed its European TerraGator operation in The Netherlands. "We set up an office close to the Grubbenvorst factory to create a dedicated team for the project," explains Dorus van Esch, European sales manager for Ploeger applicator vehicles and a former manager at the closed AGCO unit.

While European competitor machines are mainly hydrostatic drive, Ploeger engineers decided to continue with mechanical drive as proven on the TerraGator while adding variable power hydraulic drive to the front wheel.

This, says van Esch, helps pull the spreader round in headland turns to avoid creating soil berms and provides extra traction on slippery soils or when applying liquid manure through a grassland or arable injector. The spreaders are powered by Scania Tier IV engines and ZF supplies the Eccom stepless transmission (CVT) that provides fully automatic driving characteristics.

Ploeger and Oxbo are confident that the combined expertise of their global team will help the spreaders make inroads in North America and in Europe, where Ploeger was appointed AGCO's official TerraGator parts and service supplier at the beginning of this year, helping to maintain the 1,000 or so units in operation across the region.

Van Esch said, "We have a lot of application experience and are now focusing that expertise on a new generation of applicators for European and North American operators." **AEI**

Cervus Equipment Posts 14% 2Q18 Revenue Gain; Ag Sales Up by 19%

Record second quarter sales of new farm machinery boosted Cervus Equipment's overall revenue by 14%. "The strength of the Canadian agriculture segment has once again generated a record sales quarter with the highest new equipment deliveries to customers for a single quarter in Cervus' history," said Graham Drake, president and CEO of one of John Deere's largest dealership groups.

Cervus Equipment – Ag Segment Revenue 1H & 2Q 2018
(C$ thousands)

	6 months ended			3 months ended		
	2018	2017	% change	2018	2017	% change
Equipment revenue						
New	$252,640	$201,509	25%	$161,283	$130,384	24%
Used	118,374	115,100	3	77,444	69,630	11
Total equipment revenue	370,834	316,609	17	238,727	200,014	19
Parts	43,455	42,315	3	26,192	22,914	14
Service	19,538	19,377	1	10,791	10,407	4
Rental & other	2,273	2,445	– 7	1,130	1,232	– 8
Total ag revenue	**436,100**	**380,746**	**15**	**276,840**	**234,567**	**18**
Consolidated revenue	657,290	588,471	12	408,584	357,361	14

Source: Company reports

The company reported record second quarter new equipment sales in its agriculture segment, increasing 24% compared to the second quarter of 2017. "The company achieved record second quarter equipment sales supported by positive farm fundamentals, while delayed seeding in the first quarter shifted associated parts and service revenue into the second quarter of 2018," said the company.

"Growth in new agricultural equipment sales in the quarter reflects the underlying financial health of producers, combined with the delivery of orders placed during periods of favorable exchange rates in 2017," said company managers.

Used equipment and parts sales increased 11% and 14%. Cervus' $3.1 million increase in adjusted income before taxes reflected a $3.7 million increase in parts and service revenue compared to the second quarter of 2017, combined with record second quarter equipment sales.

The company also noted its increase in equipment sales shifted sales mix, which reduced Cervus' overall gross profit to 13.4% vs. 14.8% in the second quarter of 2017. For the 6 months ended June 30, adjusted income before income tax expense and income before taxes increased $2.6 million and $2.2 million, respectively, compared to the same period of 2017. **AEI**

UK Vegetable Equipment Makers Set Up Shop in U.S.

A trio of British specialty potato and vegetable equipment manufacturers have set up shop in Fremont, Mich., to better serve U.S. customers and bolster their position in the market. Tong Engineering, M&P Engineering and Nicholson Machinery have jointly opened offices, parts and service facilities, but continue to trade individually, either through independent dealers and distributors or direct to end users.

Edward Tong, managing director of Tong Engineering, said, "We have been doing business in the U.S.A. for many years, but this has significantly increased over the past couple of years, meaning more frequent visits to customers and exhibits at potato and vegetable events in the country. Alongside the potential to better service and expand our business in the U.S.A., we felt it is now time to have a physical presence in the market."

Tong is the largest manufacturer of the three, with 2017 sales of £13.8 million ($18 million) from potato and vegetable handling, washing and grading systems supplied to growers and pack houses.

The new 5,000 square foot facility holds a range of spare parts available with a quick turnaround when they are needed the most, says Tong, who add, "The Fremont-based office gives us a place to meet with customers who operate locally, and a base for making visits to customers all over the U.S.A."

The new Tong U.S. office team is taking care of sales, spares and service inquiries for all U.S. customers, with sales oversight by the company's export sales manager, Charlie Rich.

The companies sharing the Fremont facility are smaller businesses and include Nicholson Machinery, whose export sales are handled by Dan Nicholson, who specializes in onions with toppers, lifters and lifter/windrowers, baggers and box loaders, top-tailers, packing lines and a harvesting system for Green, Short Day and Sweet onions.

M&P Engineering is a leader in the processing sector, according to sales director Pamela Nugent, who anticipates the company's large onion peeler, which tops, tails and peels without water, doing well with fresh cut processing facilities in the American market.

"I've sold a few machines in the United States over the past few years, relying on third-party distributors, and because of that success decided to set up the facility with Tong and Nicholson," Nugent explains. Tom Wiersema has been appointed U.S. sales representative for the company. **AEI** to do so, which include President Trump's support for year-round E15 (15% ethanol per gallon of gas) that has yet to happen, along with refinery waivers for blending ethanol with gasoline that could reduce the volume of ethanol production, its exports continue to swell.

Growing Production. According to the U.S. Energy Information Administration, U.S. fuel ethanol production capacity continues to increase. Fuel ethanol production capacity in the United States reached more than 16 billion gallons per year, or 1.06 million barrels per day (b/d), at the beginning of 2018, EIA said in its most recent U.S. Fuel Ethanol Plant Production Capacity report. Total capacity of operable ethanol plants increased by 5% — more than 700 million gallons per year — between January 2017 and January 2018.

Of the top 13 fuel ethanol-producing states, 12 are located in the Midwest. The top three states — Iowa, Nebraska and Illinois — contain more than half of the nation's total ethanol production capacity.

Actual U.S. production of fuel ethanol reached a total of 15.8 billion gallons in 2017. It is forecast to reach 15.9 billion gallons in 2018, resulting in 98% utilization of reported nameplate capacity as of January 1, 2018.

Exports to the Rescue. While domestic use of ethanol has plateaued, exports continue to increase. According to the Renewable Fuels Assn., government data shows that U.S. ethanol exports through June stood at 927.7 million gallons (mg), up 33% from the first half of 2017 and on pace to shatter last year's record of 1.38 billion gallons (bg). RFA says that robust export markets are more important now than ever before, as actions by the Environmental Protection Agency (EPA) are "undermining domestic ethanol demand."

Ironically, the U.S.' main competitor in ethanol production, Brazil, is also its leading market for exports. No doubt, at least part of the growth in exports is a result of low corn prices, which makes ethanol more competitive in world markets.

Through the first half of 2018, Brazil has imported 345.9 million gallons of U.S. ethanol, or about 37% of total shipments. Exports to Brazil in the first half of 2018 were up 28% over the same period in 2017.

Canada has been the second-leading export market, with 159.5 million gallons of U.S. ethanol ending up there through the first 6 months of the year, which is up 8% from the same period a year ago. Other top markets for the first half of 2018 were India (70.1 mg), China (52.9 mg), South Korea (44.5 mg) and the Philippines (43.7 mg). It should be noted that nearly all of the exports to China occurred in the first 3 months of the year, and fuel ethanol exports to the country collapsed to zero in the second quarter as a result of increased tariffs. AEI

Worldwide Tractor Sales Grew 13% in 2017

Agrievolution data show that in 2017 more than 2.1 million new tractors moved around the world. This is a 13% increase over the previous year and an 11% increase over 2015. According to the world tractors market data: India and China alone accounted for more than a million units (a 16% gain), 220,000 were purchased on the U.S. market (up 4%) and 190,000 units were sold in Europe (a 13% gain). Sales in Korea fell by 16% to 8,933 units. Agrievolution is a group made up of 15 ag equipment manufacturing associations and organizations that advocates for global agricultural mechanization and shares market information.

Whereas big double digit gains in strongly expanding markets are customary, such as in India and China which account for large numbers of tractor sales, the reported 13% increase in Europe is an "unusual result," say Agrievolution officials.

Alessandro Malavolti, president of FederUnacoma, also called the Italian Agricultural Machinery Manufacturers Federation, said at a press conference earlier this summer that the unusually high gain in tractor sales in Europe is due mainly to the arrival of the 'Mother' Regulation. This regulation is a set of new machinery standards introduced this year by the European Union, which pushed manufacturers to offer special promotions at the end of 2017 for the sale and registration of their remaining stock before the regulation took effect. For instance, Italy saw a nearly 24% surge in registrations as a result. AEI

World Tractor Unit Sales – 2017

	2015	2016	2017	% change vs. 2016
Canada	24,215	22,164	25,570	+15
United States	204,962	211,194	220,006	+4
Brazil	37,385	35,963	36,976	+3
Japan (>30 HP)	22,203	18,393	18,173	–1
China (>24 HP)	556,575	420,189	487,404	+16
Korea	11,338	10,662	8,933	–16
India	483,769	569,066	659,303	+16
Russia	21,837	17,913	22,042	+23
Turkey	66,788	70,178	72,352	+3
Western Europe	171,701	167,941	189,443	+13
France	33,828	31,760	35,242	+11
Germany	32,220	28,248	33,695	+19
Italy	18,428	18,341	22,705	+24
UK	12,112	12,025	13,768	+14
Spain	10,628	11,508	12,025	+4
World	**1,936,994**	**1,903,244**	**2,153,555**	**+13**

Source:Agrievolution data: